

MEMORANDUM

To: Board of Regents

From: Board Office

Subject: Unit Cost of Instruction Report

Date: May 10, 2004

Recommended Action:

Receive the unit cost of instruction report for FY 2003.

Executive Summary:

On a biennial basis, the Regent universities compile the unit costs of instruction.

Unit cost represents the general fund supported cost of instructing a full-time equivalent (FTE) student. The information is compiled to:

- Analyze unit cost changes over time;
- Assist in the Board's tuition rate discussion; and
- Form the basis for the Iowa Tuition Grant Program.

Calculations are made with certain assumptions relative to instructional costs at the various student levels. Both total and variable costs of instruction are calculated using standardized computation methods.

The Regent composite unit cost for FY 2003 increased 2.5% from FY 2001 (see page 5.) SUI's unit cost decreased by -1.1% due to a greater increase in students than expenditures; ISU's unit cost increased by 6.1% due to a greater increase in costs than students; and UNI's unit cost increased by 2.4%. The highest composite unit cost is at SUI due to the more costly advanced graduate and professional level programs. The lowest composite unit cost is reported at UNI, which does not have any professional programs.

Unit Cost
FY 2003

| Student Level | SUI | ISU | UNI | Regent Composite |
|------------------------|---------------|--------------|--------------|------------------|
| Lower Division | \$7,329 | \$7,515 | \$5,658 | \$7,085 |
| Upper Division | 11,102 | 10,044 | 9,921 | 10,361 |
| Overall Undergraduate | 9,254 | 8,951 | 8,310 | 8,917 |
| Master's | 16,192 | 11,712 | 14,059 | 14,346 |
| Advanced Graduate | 32,046 | 15,887 | 19,094 | 22,491 |
| Professional Composite | 30,426 | 55,947 | -- | 33,544 |
| Total Composite | \$14,059 | \$10,562 | \$9,027 | \$11,676 |
| Fixed Unit Cost | \$2,521 | \$2,898 | \$1,387 | \$2,452 |
| Variable Unit Cost | <u>11,538</u> | <u>7,664</u> | <u>7,640</u> | <u>9,224</u> |
| Total Unit Cost | \$14,059 | \$10,562 | \$9,027 | \$11,676 |

Background:

| | |
|----------------------|--|
| History | Regent universities have prepared general university unit cost calculations in alternate years since FY 1969. The formula for computation of the basic unit cost has remained essentially unchanged since inception. |
| Instructional Costs | <p>In its simplest terms, the average cost of instruction could be determined by dividing total costs by the total number of students. The unit cost of instruction determines which institutional costs are related to instruction and classifies these costs according to student level. Not all institutional costs are classified as instructional.</p> <p>Included in the computation are the costs of:</p> <ul style="list-style-type: none">• Instruction;• Research (funded by general education funds);• Academic Support (excludes Price Lab School);• Student Services;• Institutional Support; and• Plant Operation and Maintenance (excludes building repairs). <p>Excluded in the computation are the costs of:</p> <ul style="list-style-type: none">• Building repairs;• Public service;• Scholarships and fellowships;• Auxiliary enterprises;• Health care units;• Academic support (includes the Price Lab School); and• Reimbursed and unreimbursed indirect costs. |
| Student Level | <p>The cost of instruction varies significantly according to student level. The unit costs of instruction are calculated making certain assumptions relative to instructional costs and is determined for each of five student educational levels:</p> <ul style="list-style-type: none">• Lower division (freshman, sophomore);• Upper division (junior, senior);• Master's;• Advanced Graduate (i.e. Ph.D.); and• Professional (i.e. MD, DVM, DDS, JD). |
| Educational Programs | <p>The cost of instruction also varies significantly according to educational programs. Substantial responsibilities and costs are associated with the more costly graduate and professional programs such as in the physical and biological sciences and pharmacy. The various educational opportunities make for dramatically diverse cost structures at each of the universities. For example:</p> <ul style="list-style-type: none">• The University of Iowa offers undergraduate degrees in microbiology and biochemistry and has a large number of students enrolled in pre-medicine and pre-dentistry programs;• Iowa State University offers degrees in agriculture and molecular biology and has a large number of students enrolled in engineering and pre-veterinary medicine programs; and• The University of Northern Iowa offers degrees in accounting and teaching and has a large number of students enrolled in chemistry and music education. |

Analysis:**Unit Cost
Computation**

Unit cost of instruction calculations include programs that are considered to be a cost of instruction and exclude programs that are not considered to be a cost of instruction. Out of total general university operating expenditures for FY 2003, programs totaling over \$719.2 million of instructional costs are included in the calculation.

FTE enrollments are based on 31 credit hours per student per fiscal year for undergraduates and 18 credit hours per student per fiscal year for advanced graduate students; each professional student is counted as one FTE.

**Composite
Unit Cost
FY 2003**

| | Expenditures Included | | FTE Students | | Unit Cost | |
|-------|-----------------------|---------------------------|----------------|---------------------------|----------------|---------------------------|
| | <u>FY 2003</u> | <u>2-year Inc/Dec</u> | <u>FY 2003</u> | <u>2-year Inc/Dec</u> | <u>FY 2003</u> | <u>2-year Inc/Dec</u> |
| SUI | \$349,752,274 | 3.4% | 24,878 | 4.5% | \$14,059 | -1.1% |
| ISU | \$261,529,812 | 4.3% | 24,761 | -1.7% | \$10,562 | 6.1% |
| UNI | <u>\$107,957,783</u> | 2.5% | <u>11,959</u> | 0.1% | \$9,027 | 2.4% |
| Total | \$719,239,869 | 3.6% | 61,598 | 1.1% | \$11,676 | 2.5% |

Total expenditures increased 3.6% over the two-year period while total enrollment increased 1.1%, for a net unit cost increase of 2.5%

Unit cost varied by university. SUI experienced a greater increase in FTE students than expenditures which resulted in a -1.1% unit cost. ISU and UNI had significantly greater increases in expenditures than FTE students, which resulted in higher unit costs, 6.1% and 2.4%, respectively.

**Fixed/
Variable
Costs**


Fixed costs include research, library books, plant operations, and equipment. These costs are expected to remain stable within a reasonable enrollment range.

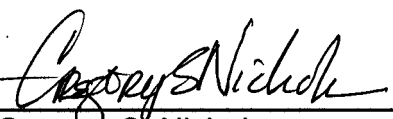
Variable costs of instruction are those costs which change in proportion to the number of students. These costs include direct instructional costs, general administration, and student services and are computed by subtracting specified fixed costs from total costs.

| | SUI | ISU | UNI | Regent Composite |
|-------------------------------------|---------------|---------------|---------------|---------------------|
| Fixed Costs | \$62,714,198 | \$71,767,363 | \$16,588,998 | \$151,070,559 |
| Composite Unit Fixed Cost | \$2,521 | \$2,898 | \$1,387 | \$2,452 |
| Variable Costs | \$287,038,076 | \$189,762,449 | \$91,368,785 | \$568,169,310 |
| Lower Division | 6,015 | 5,452 | 4,789 | 5,475 |
| Upper Division | 9,111 | 7,288 | 8,397 | 8,034 |
| Undergrad Composite | 7,594 | 6,495 | 7,033 | 6,871 |
| Master's | 13,288 | 8,498 | 11,899 | 11,060 |
| Advanced Graduate | 26,300 | 11,528 | 16,160 | 17,654 |
| Professional | | | | |
| Dentistry | 51,396 | -- | -- | |
| Law | 17,660 | -- | -- | |
| Medicine | 26,068 | -- | -- | |
| Pharmacy | 14,958 | -- | -- | |
| Professional Composite | 24,971 | -- | -- | |
| Veterinary | -- | 40,594 | -- | |
| Composite Unit Variable Cost | \$11,538 | \$7,664 | \$7,640 | \$9,224 |
| Total Costs | \$349,752,274 | \$261,529,812 | \$107,957,783 | \$719,239,869 |
| Composite Unit Cost | \$14,059 | \$10,562 | \$9,027 | \$11,676 |

Professional
Programs

| | Unit Cost of Instruction |
|------------------------|--------------------------|
| University of Iowa | |
| Medicine | \$31,763 |
| Dentistry | \$62,625 |
| Pharmacy | \$18,226 |
| Law | \$21,518 |
| Professional Composite | \$30,426 |
| Iowa State University | |
| Veterinary Medicine | \$55,947 |


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Approved: 
Gregory S. Nichols

**EXPENDITURES INCLUDED, FTE STUDENTS, AND UNIT COST OF INSTRUCTION
FY 2001 AND FY 2003**

| | Expenditures Included | | FTE Students ¹ | | Unit Cost | |
|------------------------------------|-----------------------|---------------|---------------------------|---------|-----------|----------|
| | FY 2001 | FY 2003 | FY 2001 | FY 2003 | FY 2001 | FY 2003 |
| | | | | | | |
| UNIVERSITY OF IOWA | | | | | | |
| Lower Division | \$59,177,331 | \$62,552,320 | 7,965 | 8,535 | \$7,430 | \$7,329 |
| Upper Division | 96,985,308 | 98,674,923 | 8,592 | 8,888 | 11,288 | 11,102 |
| | | | | | | |
| Subtotal Undergraduate | \$156,162,639 | \$161,227,243 | 16,557 | 17,423 | \$9,432 | \$9,254 |
| | | | | | | |
| Master's | 45,639,469 | 46,697,234 | 2,890 | 2,884 | 15,792 | 16,192 |
| Advanced Graduate | 52,478,592 | 54,382,310 | 1,590 | 1,697 | 33,005 | 32,046 |
| Professional | 83,884,333 | 87,445,487 | 2,761 | 2,874 | 30,382 | 30,426 |
| | | | | | | |
| Total | \$338,165,033 | \$349,752,274 | 23,798 | 24,878 | \$14,210 | \$14,059 |
| | | | | | | |
| IOWA STATE UNIVERSITY | | | | | | |
| Lower Division | \$64,186,725 | \$65,436,917 | 9,267 | 8,708 | \$6,926 | \$7,515 |
| Upper Division | 107,987,967 | 115,007,300 | 11,224 | 11,450 | 9,621 | 10,044 |
| | | | | | | |
| Subtotal Undergraduate | \$172,174,592 | \$180,444,217 | 20,491 | 20,158 | \$8,402 | \$8,951 |
| | | | | | | |
| Master's | 23,040,760 | 22,626,722 | 1,995 | 1,932 | 11,549 | 11,712 |
| Advanced Graduate | 35,489,703 | 36,080,104 | 2,298 | 2,271 | 15,444 | 15,887 |
| Professional | 19,981,195 | 22,378,769 | 394 | 400 | 50,714 | 55,947 |
| | | | | | | |
| Total | \$250,686,250 | \$261,529,812 | 25,178 | 24,761 | \$9,957 | \$10,562 |
| | | | | | | |
| UNIVERSITY OF NORTHERN IOWA | | | | | | |
| Lower Division | \$27,307,567 | \$23,057,811 | 4,506 | 4,075 | \$6,060 | \$5,658 |
| Upper Division | 60,292,384 | 66,521,694 | 6,266 | 6,705 | 9,622 | 9,921 |
| | | | | | | |
| Subtotal Undergraduate | \$87,599,951 | \$89,579,505 | 10,772 | 10,780 | \$8,132 | \$8,310 |
| | | | | | | |
| Master's | 11,709,718 | 11,542,602 | 857 | 821 | 13,664 | 14,059 |
| Advanced Graduate | 6,027,470 | 6,835,677 | 318 | 358 | 18,954 | 19,094 |
| | | | | | | |
| Total | \$105,337,139 | \$107,957,783 | 11,947 | 11,959 | \$8,817 | \$9,027 |
| | | | | | | |
| TOTAL REGENT UNIVERSITIES | | | | | | |
| Lower Division | \$150,671,623 | \$151,047,048 | 21,738 | 21,318 | \$6,931 | \$7,085 |
| Upper Division | 265,265,559 | 280,203,917 | 26,082 | 27,043 | 10,170 | 10,361 |
| | | | | | | |
| Subtotal Undergraduate | \$415,937,182 | \$431,250,965 | 47,820 | 48,361 | \$8,698 | \$8,917 |
| | | | | | | |
| Master's | 80,389,947 | 80,866,558 | 5,742 | 5,637 | 14,000 | 14,346 |
| Advanced Graduate | 93,995,765 | 97,298,091 | 4,206 | 4,326 | 22,348 | 22,491 |
| Professional | 103,865,528 | 109,824,256 | 3,155 | 3,274 | 32,921 | 33,544 |
| | | | | | | |
| TOTAL | \$694,188,422 | \$719,239,869 | 60,923 | 61,598 | \$11,395 | \$11,676 |

(1) Based on 31 credit hours per student per fiscal year for undergraduates and 18 credit hours per student per fiscal year for Advanced Graduate students; each Professional student is counted as one FTE.